

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number
WO 2005/077303 A2

(51) International Patent Classification⁷: A61F 2/01

(21) International Application Number:
PCT/US2005/004076

(22) International Filing Date: 8 February 2005 (08.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/543,766 9 February 2004 (09.02.2004) US

(71) Applicant (for all designated States except US): **THE GOVERNMENT OF THE UNITED STATES OF AMERICA** as represented by the SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES [US/US]; 6011 Executive Boulevard., Suite 325, Rockville, MD 20852 (US).

(72) Inventors; and

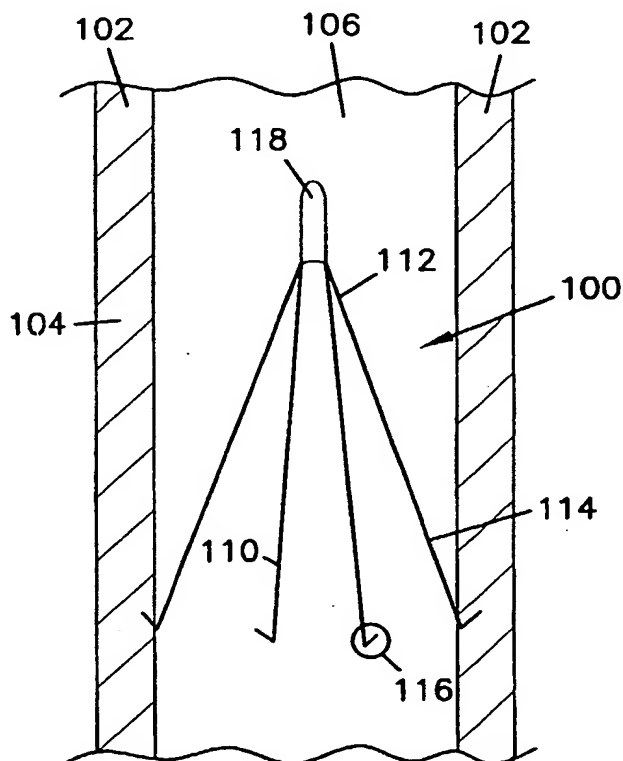
(75) Inventors/Applicants (for US only): **NEEMAN, Ziv** [IL/US]; 9029 Paddock Lane, Potomac, MA 20854 (US). **WOOD, Bradford, J.** [US/US]; 8209 Gainsborough, Potomac, MD 20854 (US).

(74) Agent: **KOWALCHYK, Katherine, M.**; Merchant & Gould P.C., P.O. Box 2903, Minneapolis, MN 55402-0903 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: VENOUS FILTERS



(57) Abstract: Venous filters having at least two struts each having a connected end and a non-connected end, wherein each of the struts includes a strut portion and an anchor portion, and wherein the strut portion and the anchor portion are attached via an electrolytically active thread; and a head that connects the connected ends of the struts, wherein the strut portion can be separated from the anchor portion at least in part by the application of an electrical current. The invention also includes a venous filter having at least two struts, wherein each of the struts includes a temperature sensitive portion and an anchor portion; wherein the anchor portion is separated from the temperature sensitive portion at least in part by changing the temperature around at least the temperature sensitive portion. Also included is a venous filter having a web of dissolvable material; and at least two anchors, wherein the at least two anchors are configured to retain the web within a mammalian blood vessel.

WO 2005/077303 A2



(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.